bath gas from is introduced through a gas introduction hole arranged in said ring electrode having a center axis almost orthogonal to an axis connecting the center axis of said incidence hole and the center axis of said ejection hole so as to reach the center part of said ion trap for dissociating said precursor ions;

ejecting fragment-the dissociated ions from said ion trap; and detecting the ejected ions.

11. (currently amended) A mass spectrometric method comprising the steps of:

generating sample ions by an ion source;

allowing said ions to be incident and accumulated into an ion trap having a first endcap electrode having an incidence hole into which said ions are incident, a second endcap electrode having an ejection hole from which said ions are ejected, and a ring electrode;

selectively holding precursor ions having a desired mass in said ion trap;

jetting dissociating said precursor ions, wherein an intermittently-introduced bath gas from is introduced through a gas introduction hole arranged in said ring electrode having a center axis arranged so as to pass through a region including the center of said ion trap into said ion trap to dissociate said precursor ions;

ejecting fragment-the dissociated ions from said ion trap; and detecting the ejected ions.

(new) The mass spectrometer according to claim 12, wherein said intermittently-introduced bath gas is introduced from said gas introduction hole into said ion trap one of (a) during the accumulating of ions generated by said ion source and the isolating of precursor ions from the accumulated ions, and (b) during the dissociating of the isolated precursor ions.

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